

**HYPERTENSION (HIGH BLOOD PRESSURE)**

Hypertension is a major risk factor for coronary artery disease. High blood pressure promotes the atherosclerotic process responsible for plaques in coronary arteries.

Recently the World Health Organization (WHO) and the International Society of Hypertension (ISH) published guidelines for the management of hypertension. These organizations define hypertension as a systolic blood pressure of 140mm hg or greater and/or diastolic blood pressure of 90mm hg or greater. These values are for people who are not taking anti-hypertensive medications.

Co-existing risk factors must also be taken into account when determining the severity of hypertension. Individuals who have co-existing risk factors such as diabetes, heart failure or renal failure should have treatment aimed at bringing the systolic blood pressure to less than 130mm hg and diastolic pressure to less than 85mm hg.

It should also be noted that there is not a "threshold" affect in the interaction of blood pressure as it relates to the development of coronary artery disease. That is to say while 140/90 is a number to consider for classifying one as hypertensive, systolic of 130 to 140 and diastolic pressures of 80 to 90 are also considered borderline high and should be taken seriously. In this same light, as blood pressure increases to higher levels, above 140/90, the risk for atherosclerosis and end organ detrimental affects increases. Again, this becomes markedly so when additional risk factors are present.

There are many different drugs available to treat hypertension. The diagnosis and treatment of hypertension is a complex area and absolutely needs to be under the guidance of a healthcare professional.

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**FIGURE 6F**

**LEFT VENTRICULAR HYPERTROPHY**

Left ventricular hypertrophy is enlargement of the heart, usually a consequence of hypertension (high blood pressure). This is associated with increased risk of adverse cardiovascular events such as heart attack, sudden death and heart failure.

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**ANTI-PLATELET/ANTI-THROMBOTIC AGENTS (ASPIRIN)**

Aspirin works by inhibiting platelets. This results in an anti-thrombotic(anti-clotting) effect. Other agents have been used but they either do not have the desired effect or have increased complications.

Individuals who have chronic stable angina experience significant decrease in adverse cardiovascular events if they use Aspirin.

If an individual is suffering from unstable angina, Aspirin significantly decreases the risk of heart attack and death. This is called secondary prevention. In patients with known coronary artery disease, Aspirin is recommended in a dose of 75 to 325mg daily. There are risks and contraindications to this treatment, therefore this should be discussed with your healthcare professional.

The issue concerning using Aspirin in individuals without known coronary artery disease or with no angina (primary prevention) is still an open question. In men over the age 50 with other risk factors for the development of coronary disease appear to have the greatest benefit. The greater the risk factor analysis the more likely aspirin would be to their advantage.

Bleeding is a risk when one takes Aspirin. This is particularly so with hypertension (high blood pressure). Therefore, Aspirin use as primary prevention should only be under the guidance of a healthcare professional.

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